

Remarks

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Initially, Applicants express their appreciation for the courtesy of a personal interview granted to their attorney by Examiner Keehan and Mr. Dawson, the results of which are summarized in the Interview Summary form.

The Interview Summary form indicates that it is necessary for Applicants to provide a separate record of the substance of the interview. Initially, Applicants' attorney confirms the substance of the interview as set forth in the Interview Summary form. In addition to this, Applicants' attorney generally discussed case law, which will be cited below, relating to the need to consider the problem confronted by the inventors, in determining the question of obviousness of the invention. There were also materials (exhibits) shown by Applicants' attorney during the interview, relating to the use of the stain resistant agent for the treatment of sanitary chinaware, but it was agreed that in view of the amendments to be made in claims 1 and 12, it would not be necessary to submit these materials.

Thus, claim 1 has now been amended to recite that the stain resistant agent prevents scale from adhering to the sanitary chinaware; and claim 12 has been amended to claim a method of preventing scale from adhering to the surface of sanitary chinaware. These amendments are supported by the disclosures at page 5, lines 21-26 and page 9, lines 24-25 of the specification, with the disclosure at page 9, lines 24-25 specifically mentioning the word "scale" used in the amended claims.

As indicated in the Interview Summary form, it is the understanding of Applicants' attorney that these amendments will be entered even though they are being submitted after a final rejection.

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in the Office Action, will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1-10 and 12-23 under 35 U.S.C. §103(a) as being unpatentable over Asai et al. (USP 5,599,893) in view of Bertocchi et al. (USP 6,174,608) is respectfully traversed.

In addressing the obviousness of an invention, the nature of the problem confronted by the inventors and the inventors' solution to the problem are factors to be considered in determining whether the invention would have been obvious. *Northern Telecom v. Datapoint*, CAFC, 15 USPQ2d 1321.

In this regard, use of sanitary ware causes stain such as yellowish stain. The inventors found that a cause of the stain was based on scale of silicic acid due to soluble silica dissolved in water used to flush the sanitary ware which is water supplied from a water service or which is underground water. Sanitary ware is wetted with flush water containing soluble silica and dried alternately and repeatedly. The repeated wetting and drying accumulates scale, whereupon the stain becomes striking. In the present invention, based on this cause for the stain on sanitary ware, a stain resistant agent most suitable for coping with the cause of the problem was selected.

The present inventors were the first to discover this cause of the problem in staining of sanitary chinaware.

Asai et al. disclose repelling water and causing droplets to fall down a surface. Furthermore, Asai et al. disclose that water adhering to glass articles, porcelain, tiles, plastic materials and metals is collected into droplets, which take in dust and oil from the atmosphere. Asai et al. further disclose that the droplets are dried into stain. However, Asai et al. disclose or suggest nothing about stain due to scale of soluble silica contained in flush water. Stain due to the soluble silica in flush water has nothing to do with stain resulting from water repellency, falling of droplets and dust in the air. The cause for stain of sanitary ware was never revealed before the present invention.

Bertocchi et al. disclose sanitary ware as one type of ceramic, or more specifically, one type of porcelain, which has a glaze layer on its surface. However, like Asai et al., the Bertocchi et al. reference fails to mention or suggest anything about preventing the formation of scale on sanitary ware, to which the present invention is directed.

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references.

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance.

In this regard, as noted in the Interview Summary form, entry of these amendments will put the case in condition for allowance.

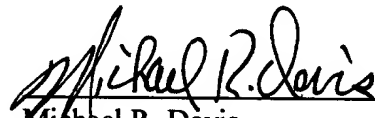
IDS Reminder

Applicants note that a Supplemental Information Disclosure Statement was filed on June 4, 2003, after issuance of the Office Action. The Examiner is kindly requested to consider the two references cited on the PTO-1449 form attached thereto, and send Applicants' attorney a copy of the initialed form.

Respectfully submitted,

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